

57th Search History

FILE 'HOME' ENTERED AT 11:43:39 ON 07 JUL 2003

L5 214 L1 AND (MULIPLE OR PLURAL#### OR SEVERAL OR ((ONE OR TWO) (3A)
MORE)) (S) (SIT## OR ANALYT### OR BIND####)

(FILE 'HOME' ENTERED AT 11:43:39 ON 07 JUL 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS' ENTERED AT 11:44:08 ON 07 JUL 2003

L1 4802 S BIOSENSOR AND (VIRUS OR BACTER##### OR ANALYTE)
L2 35 S L1 AND DIFFRACTION
L3 33 DUP REM L2 (2 DUPLICATES REMOVED)
L4 15 S L3 NOT PY>2001
L5 214 S L1 AND (MULIPLE OR PLURAL#### OR SEVERAL OR ((ONE OR TWO) (3A
L6 168 DUP REM L5 (46 DUPLICATES REMOVED)
L7 107 S L6 NOT PY>2001
L8 7 S L7 AND (DIAGNOS## OR PATHOGEN)
L9 7 S L8 NOT L4

L4 ANSWER 1 OF 15 MEDLINE
 AN 92329456 MEDLINE
 DN 92329456 PubMed ID: 1627568
 TI Determination of kinetic constants for the interaction between a monoclonal antibody and peptides using surface plasmon resonance.
 AU Altschuh D; Dubs M C; Weiss E; Zeder-Lutz G; Van Regenmortel M H
 CS Institut de Biologie Moleculaire et Cellulaire, Laboratoire d'Immunochimie, Strasbourg, France.
 SO BIOCHEMISTRY, (1992 Jul 14) 31 (27) 6298-304.
 Journal code: 0370623. ISSN: 0006-2960.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 199208
 ED Entered STN: 19920904
 Last Updated on STN: 19970203
 Entered Medline: 19920814
 AB Differences in the affinity of a monoclonal antibody raised against the protein of tobacco mosaic **virus** for 15 related peptides (residues 134-146) carrying single-residue modifications were investigated using a novel **biosensor** technology (Pharmacia BIAcore). Analysis of the peptide-antibody interaction in real time allowed fast and reproducible measurements of both association and dissociation rate constants. Out of 15 mutant peptides analyzed, five were not recognized by the antibody at all, and seven were recognized as well as the wild-type peptide. For three of the peptides, the rate constants were different for the mutant and wild-type peptides. The pattern of residue recognition suggests that the epitope is formed by three residues (140, 143, and 144) in a helical conformation that mimics the structure in the protein. Even a minor modification of these residues totally abolishes recognition by the antibody. Modifications of adjacent residues result in small but significant differences in association and/or dissociation rate constants. One of the recognized residues is totally buried in the three-dimensional structure of TMV protein, suggesting that a structural rearrangement next to the helix occurs during protein-antibody interaction.

L4 ANSWER 2 OF 15 MEDLINE
 AN 91371621 MEDLINE
 DN 91371621 PubMed ID: 1893575
 TI Optical **biosensor** assay (OBA).
 AU Tsay Y G; Lin C I; Lee J; Gustafson E K; Appelqvist R; Magginietti P; Norton R; Teng N; Charlton D
 CS Adeza Biomedical Corp., Sunnyvale, CA 94089.
 SO CLINICAL CHEMISTRY, (1991 Sep) 37 (9) 1502-5.
 Journal code: 9421549. ISSN: 0009-9147.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 199110
 ED Entered STN: 19911108
 Last Updated on STN: 19990129
 Entered Medline: 19911024
 AB We describe a new **biosensor** immunoassay involving optical **diffraction** to detect clinically important **analytes** in human body fluids. A silicon wafer is used as a support for immobilization of antigen or antibody. The protein-coated surface is illuminated through a photo mask to create distinct periodic areas of active and inactive protein. When the surface is incubated with a

positive sample, antigen-antibody binding occurs only on the active areas. Upon illumination with a light source such as a laser, the resulting biological **diffraction** grating diffracts the light. A negative sample does not result in **diffraction** because no antigen-antibody binding occurs to create the **diffraction** grating. The presence or absence of a **diffraction** signal differentiates between positive and negative samples, and the intensity of the signal provides a quantitative measure of the **analyte** concentration. The technique is demonstrated with a quantitative assay of choriogonadotropin in serum.

L4 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 2000:840499 CAPLUS

DN 134:128177

TI Immobilization of antibodies in micropatterns for cell detection by optical **diffraction**

AU Morhard, F.; Pipper, J.; Dahint, R.; Grunze, M.

CS Angewandte Physikalische Chemie, Universitaet Heidelberg, Heidelberg, 69120, Germany

SO Sensors and Actuators, B: Chemical (2000), B70(1-3), 232-242

CODEN: SABCEB; ISSN: 0925-4005

PB Elsevier Science S.A.

DT Journal

LA English

AB Optical **diffraction** at biochem. microstructured surfaces has been investigated for the label-free in situ detection of cells. The new sensor concept is based on regular arrays of covalently coupled antibodies, which selectively bind cells from soln. Due to the adsorption process, changes are imposed on the intensity distribution of the diffracted light, which can serve to quantify the amt. of adsorbed cells. For the formation of such microstructures, different classical film prepn. techniques were transferred to a mesoscopic scale by the use of microcontact printing (μ CP). Alternatively, receptors were functionalized with thiol groups prior to the immobilization process and directly printed onto the gold surface. Compared to imprinting of non-functionalized proteins on gold, a better replication of the micropatterns could be obtained. Addnl., a significantly lower amt. of defects was obsd. than for the classical coupling techniques. Using such microstructures, first expts. on the detection of Escherichia coli **bacteria** were performed. **Diffraction** patterns have been obsd. for concns. equal or higher than 106 cells/mL. In time dependent expts., **diffraction** spots occurred after 30-90 min or 10-20 min, depending on whether non-specific cell adsorption or specific binding to anti-E. coli IgG was studied. A first quant. anal. of the **diffraction** patterns shows that the total amt. of diffracted light increases with increasing incubation time.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 2000:683720 CAPLUS

DN 134:159617

TI Labelless, reagentless, **biosensor**

AU Batt, Carl A.; Cady, Nathan; Orth, Reid; Kameoka, Jun; Thompson, Roy; Valdes, James J.; Craighead, Harold

CS Agave BioSystems, Ithaca, NY, USA

SO Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, MD, United States, Nov. 17-20, 1998 (1999), Meeting Date 1998, 233-243. Editor(s): Berg, Dorothy A. Publisher: National Technical Information Service, Springfield, Va. CODEN: 69AJH3

DT Conference
 LA English
 AB A labelless, reagentless **biosensor** that employs a microcontact printed optical **diffraction** (MiCOD) format has been constructed that can detect virtually any antigen. The detection component is based upon the **diffraction** of a laser that is illuminating a grating produced when the antigen is bound to microcontact printed antibodies. The antibodies are patterned on to a silicon surface using an elastomeric stamp that is made with a photolithog. etched master. The MiCOD format, requires no secondary label and bound **analytes** are detected on the basis of the difference in refractive index relative to the surrounding medium. A portable, battery-operated prototype instrument has been constructed that is capable of reading the intensity of the first order **diffraction** signal. The utility of the system has been demonstrated by the specific detection of Escherichia coli O157:H7 and Salmonella. The MiCOD system is robust and this format can be extended to detect virtually any biol. warfare agent either in a direct or a competition format.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 1998:424392 CAPLUS

DN 129:51695

TI Biosensing devices which produce **diffraction** images

IN Everhart, Dennis S.; Kaylor, Rosann Marie; Grunze, Michael; Morhard, Friderike Karolin Deseree

PA Kimberly-Clark Worldwide, Inc., USA

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9827417	A1	19980625	WO 1997-US23663	19971217
	W:				
	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5922550	A	19990713	US 1996-768449	19961218
	AU 9856156	A1	19980715	AU 1998-56156	19971217
	AU 731168	B2	20010322		
	EP 946865	A1	19991006	EP 1997-952578	19971217
	R:				
	BE, DE, ES, FR, GB, IT, NL, SE				
	CN 1246179	A	20000301	CN 1997-181803	19971217
PRAI	US 1996-768449	A	19961218		
	WO 1997-US23663	W	19971217		

AB The present invention provides an inexpensive and sensitive device and method for detecting and quantifying **analytes** present in a medium. The device comprises a metalized film upon which is printed a specific, predetd. pattern of **analyte**-specific receptors. Upon attachment of a target **analyte** to select areas of the plastic film upon which the receptor is printed, **diffraction** of transmitted and/or reflected light occurs via the phys. dimensions and defined, precise placement of the **analyte**. A **diffraction** image is produced which can be easily seen with the

eye or, optionally, with a sensing device. Thus, a gold-coated Mylar film is printed with a pattern of circles using a stamp coated with hexadecanethiol. The rest of the film is then coated with a hexamer sugar thiol. The resulting wafer is used to detect *Saccharomyces cerevisiae* by the **diffraction** patterns created on the sensor.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 1998:106712 CAPLUS

DN 128:177814

TI **Diffraction**-Based Cell Detection Using a Microcontact Printed Antibody Grating

AU St. John, Pamela M.; Davis, Robert; Cady, Nathan; Czajka, John; Batt, Carl A.; Craighead, Harold G.

CS School of Applied and Engineering Physics, Cornell Nanofabrication Facility, Ithaca, NY, 14853, USA

SO Analytical Chemistry (1998), 70(6), 1108-1111

CODEN: ANCHAM; ISSN: 0003-2700

PB American Chemical Society

DT Journal

LA English

AB An optical detector has been fabricated that is specific for targeted **bacterial** cells, by stamping an antibody grating pattern on a silicon surface. The antibody grating alone produces insignificant optical **diffraction**, but upon immunocapture of cells, the optical phase change produces a **diffraction** pattern. This technique eliminates much of the surface modifications and the secondary immunochem. or enzyme-linked steps that are common in immunoassays. Microcontact printing provides an alternative to previously reported photolithog.-mediated antibody patterning processes and uses a photolithog. process simply to produce the elastomeric stamp. We have stamped antibodies directly onto clean native oxide silicon substrates with no other chem. surface treatments. Direct binding of the antibodies to the silicon occurs in a way that still allows them to function and selectively bind antigen. The performance of the sensor was evaluated by capturing *Escherichia coli* O157:H7 cells on the antibody-stamped lines and measuring the intensity of the first-order **diffraction** beam resulting from the attachment of cells. The **diffraction** intensity increases in proportion to the cell d. bound on the surface.

L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 1997:424363 CAPLUS

DN 127:157268

TI Real-time measurement of nucleic-acid hybridization using evanescent-wave sensors: steps towards the genosensor

AU Bier, Frank F.; Kleinjung, Frank; Scheller, Frieder W.

CS Institute of Biochemistry and Molecular Physiology, University of Potsdam, and Max-Delbrueck-Centre for Molecular Medicine, Robert-Roessle-Strasse 10, D-13125, Berlin, Germany

SO Sensors and Actuators, B: Chemical (1997), B38(1-3), 78-82

CODEN: SABCEB; ISSN: 0925-4005

PB Elsevier

DT Journal

LA English

AB Nucleic acids are used as receptors in biosensing for the detn. of complementary nucleic-acid strands. This may be useful in clin. diagnostics, e.g., searching for DNA from **viruses**, or in other fields of hygiene or environmental monitoring. This study demonstrates reversible binding of DNA oligonucleotides to immobilized DNA targets. Using both a grating coupler detector and surface plasmon resonance, the

evanescent field is employed to distinguish between bound and unbound species. As a bridge for the immobilization of the DNA, streptavidin (or avidin) is coupled to the sensor surface. Three different targets have been investigated: (1) randomly biotinylated poly(dA); (2) 5'-biotinylated 24-mer consisting of balanced amts. of purines and pyrimidines; and (3) 5'-biotinylated 13-mer. The binding kinetics of poly(dT) have been investigated, demonstrating this fast process as multibinding complex formation, since no sequence specificity is involved. The binding of a variety of 13-mers to 24-mer and 13-mer templates has been obsd. and the binding kinetics analyzed. In a 13-mer point mutations can be resolved by anal. of assocn. and dissocn. rate consts.

L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 1995:811219 CAPLUS

DN 123:333351

TI **Bacterial** luciferase: determination of the structure by X-ray diffraction

AU Ziegler, M. M.; Baldwin, T. O.

CS Texas A and M Research Foundation, College Station, USA

SO Report (1994), Order No. AD-A279699, 73 pp. Avail.: NTIS

From: Gov. Rep. Announce. Index (U. S.) 1994, 94(18), Abstr. No. 451,380

DT Report

LA English

AB This project was focused on detn. of the three-dimensional structure of **bacterial** luciferase. The structure of the enzyme is of fundamental importance to the understanding of the catalytic mechanism and the mode of interaction of the enzyme with accessory proteins, and is essential to future plans to develop **biosensor** technologies. In the course of this project, numerous cryst. trials were carried out and conditions were refined that permitted high resoln. data to be collected and interpreted. In collaboration with Dr. Ivan Rayment of the University of Wisconsin, data have been collected from native crystals and 3 derivs. at 2.8 .ANG.. Higher resoln. data are being collected at this time, and we fully expect to have a high resoln. structure within the next few months, certainly by the end of the calender year 1994. We have also developed crystn. protocols for several mutant luciferases. Structural anal. of the mutant luciferases should enable us to locate the active site in the 3-dimensional structure of the wild-type enzyme, permit mechanistic interpretation of numerous expts. that have been reported over the past ca. 25 yr, and assist us in designing the next generation of mutant enzymes to test hypotheses regarding the mechanism of light prodn. by this intriguing and important enzyme.

L4 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 1992:403816 CAPLUS

DN 117:3816

TI Reusable fiber-optic sensor

IN Berlin, Peter; Becker, Manfred; Guether, Reiner; Breitfeld, Dagmar;

Schwachula, Gerhard; Feistel, Lothar

PA Akademie der Wissenschaften, Germany

SO Ger. (East), 20 pp.

CODEN: GEXXA8

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 296757	A5	19911212	DD 1990-342978	19900723
PRAI	DD 1990-342978		19900723		
AB	Fiber-optic (bio)sensors are described which contain a reagent phase separable from and optically coupled to the fiber optics, so that the				

reagent phase can be exchanged or replaced in a reproducible position relative to the fiber optics. The reagent phase contains immobilized biol. components and/or an indicator system, and its optical properties (absorbance, fluorescence, luminescence) change on exposure to the **analyte**. This arrangement reduces the cost of sensors which utilize irreversible reactions, unstable biol. components, etc., as the reagent phase may comprise a disposable component of the sensor. Thus, a crosslinked sulfated polystyrene bead 0.8 mm in diam. was shaken successively in solns. contg. N,N-diethyl-p-phenylenediamine-HCl (I; H2O2 indicator) and glucose oxidase, and washed. The bead was placed in a fiber-optic cuvette in which it acted as a lens which, together with a concave mirror, focused light emitted by the optic fiber back onto the tip of the fiber. On addn. of a glucose soln. to the cuvette, the change in absorbance of the bead due to I oxidn. by H2O2 formed in the glucose oxidase reaction was registered. Various configurations of the reagent phase are illustrated schematically.

L4 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2003 ACS
AN 1990:494108 CAPLUS
DN 113:94108

TI A direct surface plasmon-polariton immunosensor: preliminary investigation of the non-specific adsorption of serum components to the sensor interface

AU Cullen, D. C.; Lowe, C. R.

CS Inst. Biotechnol., Univ. Cambridge, Cambridge, CB2 3EF, UK

SO Sensors and Actuators, B: Chemical (1990), B1(1-6), 576-9
CODEN: SABCEB; ISSN: 0925-4005

DT Journal

LA English

AB Nonspecific adsorption of serum protein components to a direct immunosensor constructed from a silvered **diffraction** grating coated with goat IgG was detd. Nonspecific adsorption to a simplistic sensor interface was significant and would be expected to limit the sensitivity of reported immunosensors when used for the estn. of specific **analytes** in serum. This work highlights the need for complex sensor interfaces comprised of suitable chem. modifications and controlled, oriented, immobilization of immol. components.

L4 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2003 ACS
AN 1989:570616 CAPLUS
DN 111:170616

TI Assay method and kit using surface plasmon resonance

IN Drake, Rosemary Anne Lucy; Sawyers, Craig George; Robinson, Grenville Arthur

PA Ares-Serono Research and Development Ltd. Partnership, USA

SO Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 276142	A1	19880727	EP 1988-300458	19880120
	EP 276142	B1	19930414		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	IL 85137	A1	19920216	IL 1988-85137	19880119
	AU 8810631	A1	19880728	AU 1988-10631	19880120
	AU 621038	B2	19920305		
	JP 63271162	A2	19881109	JP 1988-8569	19880120
	JP 07111435	B4	19951129		
	CA 1309017	A1	19921020	CA 1988-556939	19880120

	AT 88278	E	19930415	AT 1988-300458	19880120
	ES 2054793	T3	19940816	ES 1988-300458	19880120
	US 6093536	A	20000725	US 1988-146246	19880120
PRAI	GB 1987-1293	A	19870121		
	GB 1987-25797	A	19871104		
	EP 1988-300458	A	19880120		

AB A method of assaying a ligand in a sample comprises incubating, simultaneously or in any desired sequence, the sample, a reagent X, and a reagent Y immobilized directly or indirectly on the surface of an optical structure capable of exhibiting surface plasmon resonance. One of X and Y comprises a specific binding partner to the ligand and the other comprises either a ligand analog or a specific binding partner to the ligand. Any formation of a direct or indirect complex between reagents X and Y results in an optical surface having appreciably enhanced optical thickness as compared to the thickness in the absence of reagent X. The extent to which and/or rate at which the surface plasmon resonance effect is altered by the complex formation is detd. Clean Au-coated **diffraction** gratings were read in an app. for measuring surface plasmon resonance and the wavelength of the Wood's anomaly (the min. in reflected light intensity which results from the generation of surface plasmon resonance on a **diffraction** grating) recorded. Hemagglutinin in phosphate-buffered saline (PBS) was spread over the gratings and incubated for 37.degree. for 1 h in a moist atm. After washing, the strips were incubated with 1% bovine serum albumin in PBS for 1 h at 37.degree., washed, incubated 2 h with human sera or diluent with slight agitation (85 rpm), washed, and incubated for 2 h with influenza A **virus**. The gratings were washed and air dried prior to measuring the position of the Wood's anomaly for each strip. Pos. serum plus **virus** label gave a large shift in the position of the anomaly.

L4 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 1989:228175 CAPLUS

DN 110:228175

TI **Diffraction** immunoassay and reagents and process for manufacturing a biograting for use therein

IN Gustafson, Eric K.; Lee, John; Calenoff, Emanuel; Trebino, Rick; Tsay, Yuh Geng

PA Yellowstone Diagnostics Corp., USA

SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 276968	A2	19880803	EP 1988-300590	19880125
	EP 276968	A3	19880921		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	US 4876208	A	19891024	US 1987-9177	19870130
	US 4886761	A	19891212	US 1987-30327	19870326
	CA 1305921	A1	19920804	CA 1988-557096	19880121
	IL 85237	A1	19920621	IL 1988-85237	19880128
	AU 8810995	A1	19880804	AU 1988-10995	19880129
	AU 604830	B2	19910103		
	JP 63277969	A2	19881115	JP 1988-17537	19880129
PRAI	US 1987-9177		19870130		
	US 1987-30327		19870326		
	US 1987-34876		19870406		

AB A **diffraction** binding assay for detg. the presence or quantity of an **analyte** in an aq. sample comprises (a) contacting a **diffraction** binding assay surface with the sample for a sufficient

time, the surface being polycryst. Si (polysilicon) or single-cryst. Si having a light-disturbing design of active **analyte**-binding reagent thereon; (b) sepg. the surface from the sample; and (c) illuminating the **diffraction** binding assay surface and measuring the diffracted light. The biograting is manufd. by adhering a uniform layer of binding reagent on a smooth, solid surface and exposing the surface to UV radiation through a shadow mask with **diffraction** grating lines to selectively deactivate the binding reagent to leave a biol. **diffraction** grating design of lines of active binding reagent. A precise focused shadow is cast without phys. contacting the binding reagent layer with the mask. A polysilicon-coated Si wafer was immersed in a soln. of ragweed pollen allergen, rinsed with buffered saline, and dried. A mask having a series of squares corresponding in size and shape to the ultimate chip product and with **diffraction** grating lines having a line spacing of 10 .mu.m, a line width of 5 .mu.m, and a line d. of 100 lines/cm was positioned in an alignment projector and a sharp image of the lines on the mask was projected with 254-nm UV light for 60 min. The wafer was immersed in 0.1M phosphate-buffered saline (pH 7.4) contg. sucrose 2.5, bovine serum albumin 0.25, and NaN3 0.1 wt. % for 30 min, the excess was removed, and the wafer was dried. The wafer was cut into square chips having a **diffraction** grating pattern of allergen on it for use in a ragweed-specific IgE immunoassay.

L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2003 ACS

AN 1988:625988 CAPLUS

DN 109:225988

TI Sensitivity of integrated optical grating and prism couplers as (bio)chemical sensors

AU Lukosz, W.; Tiefenthaler, K.

CS Opt. Lab., Swiss Fed. Inst. Technol., Zurich, 8093, Switz.

SO Sensors and Actuators (1988), 15(3), 273-84

CODEN: SEACDX; ISSN: 0250-6874

DT Journal

LA English

AB Grating and prism couplers on planar waveguides coated with a thin chemoresponsive coating are proposed and analyzed as chem. and biochem. sensors, for example, as immunosensors. They respond to the formation of a submonomol. adlayer by adsorption, chemisorption, binding of the **analyte** to the coating, or to induced changes in the coating's refractive index. The theory of the sensor sensitivity is discussed. Very high sensitivities are obtained with thin monomode waveguides if the difference $n_F - n_S$ between the refractive indexes of the waveguiding film F and the substrate S has a high value, e.g., $n_F - n_S \gtrsim 0.3$. With 100-200 nm thick SiO₂-TiO₂ waveguiding films on glass substrates, changes in thickness $\gtrsim 0.04$ nm of an adsorbed or bound protein layer and changes in refractive index $\gtrsim 2 \times 10^{-5}$ can be measured.

L4 ANSWER 14 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 2001:461946 BIOSIS

DN PREV200100461946

TI Patterned binding of functionalized microspheres for optical **diffraction**-based biosensors.

AU Everhart, Dennis S.; Kaylor, Rosann M. (1); McGrath, Kevin

CS (1) Cumming, GA USA

ASSIGNEE: Kimberly-Clark Worldwide, Inc.

PI US 6221579 April 24, 2001

SO Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 24, 2001) Vol. 1245, No. 4, pp. No Pagination. e-file.

ISSN: 0098-1133.

DT Patent

LA English

AB The present invention provides an inexpensive and sensitive system and method for detecting **analytes** present in a medium. The system comprises a **diffraction** enhancing element, such as functionalized microspheres, which are modified such that they are capable of binding with a target **analyte**. Additionally, the system comprises a polymer film, which may include a metal coating, upon which is printed a specific, predetermined pattern of a **analyte**-specific receptors. Upon attachment of a target **analyte** to select areas of the polymer film, either directly or with the **diffraction** enhancing element, **diffraction** of transmitted and/or reflected light occurs via the physical dimensions and defined, precise placement of the **analyte**. A **diffraction** image is produced which can be easily seen with the eye or, optionally, with a sensing device.

L4 ANSWER 15 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 2000:516251 BIOSIS

DN PREV200000516251

TI Optical **diffraction biosensor**.

AU Everhart, Dennis S. (1); Jones, Mark L.; Kaylor, Rosann Marie

CS (1) Alpharetta, GA USA

ASSIGNEE: Kimberly-Clark Worldwide, Inc.

PI US 6060256 May 09, 2000

SO Official Gazette of the United States Patent and Trademark Office Patents, (May 9, 2000) Vol. 1234, No. 2, pp. No pagination. e-file.

ISSN: 0098-1133.

DT Patent

LA English

AB The present invention provides an inexpensive and sensitive device and method for detecting and quantifying **analytes** present in a medium. The device comprises a metalized film upon which is printed a specific, predetermined pattern of **analyte**-specific receptors. Upon attachment of a target **analyte** to select areas of the plastic film upon which the receptor is printed, **diffraction** of transmitted and/or reflected light occurs via the physical dimensions and defined, precise placement of the **analyte**. A **diffraction** image is produced which can be easily seen with the eye or, optionally, with a sensing device.

L9 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 1999:181653 CAPLUS

DN 130:204488

TI Method and device for parallel analysis of multiple **analytes** in complex mixtures

IN Weller, Michael G.; Niessner, Reinhard; Schuetz, Andreas; Winklmaier, Michael

PA Germany

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19736641	A1	19990311	DE 1997-19736641	19970822
PRAI	DE 1997-19736641		19970822		

AB A process for simultaneous and parallel **anal.** of multiple components in fluids is characterized by: (1) a multi-channel detection by localized reaction with selected immobilized reagents, (2) a high scalability of the **anal.** systems, (3) **binding** mols. for the substrates (compds. to be analyzed) with variable specificities, (3) the reactions are carried out in one or **several** (max. 10) compartments (e.g., in a sample array), in which the max. no. of samples equals the no. of compartments. Each sample can then be analyzed by a different type of **anal.** (e.g., photochem., luminescence, etc.). The method can be incorporated into biol. assays (e.g., antibodies binding, ELISA, etc.) in which the binding mol. is immobilized on silanized glass.

L9 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 1998:568970 CAPLUS

DN 129:200179

TI Methods and compns. for detection of **analytes** using color changes that occur in biopolymeric material in response to selective binding of **analytes**

IN Stevens, Raymond; Quan, Cheng

PA The Regents of the University of California, USA

SO PCT Int. Appl., 121 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9836263	A1	19980820	WO 1998-US2777	19980213
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU	9861627	A1	19980908	AU 1998-61627	19980213
EP	1007943	A1	20000614	EP 1998-906389	19980213
	R: CH, DE, FR, GB, LI				
PRAI	US 1997-38383P	P	19970214		
	WO 1998-US2777	W	19980213		

AB The present invention relates to methods and compns. for the direct detection of **analytes** using color changes that occur in biopolymeric material in response to selective binding of **analytes**. The invention provides biopolymeric materials comprising a **plurality** of polymd. self-assembling monomers and **one** or **more** protein ligands, wherein the biopolymeric materials change color in the presence of **analyte**. In some embodiments, the protein ligands are selected from the group consisting of peptides,

proteins, antibodies, receptors, channels, and combinations thereof, although the present invention contemplates all protein ligands. In specific embodiments, the antibodies of the presently claimed invention are directed against Chlamydia.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 1997:230019 CAPLUS

TI A portable, rapid **biosensor** for pathogenic agents.

AU Spangler, Brenda D.; Ballantine, David S.

CS Department Chemistry and Biochemistry, Montana State University, Bozeman, MT, 59717, USA

SO Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17 (1997), BTEC-033 Publisher: American Chemical Society, Washington, D. C. CODEN: 64AOAA

DT Conference; Meeting Abstract

LA English

AB Travel to areas of high disease prevalence brings many unprotected travelers in contact with a wide variety of pathogenic agents, which can then be easily transported anywhere in the world. War and civil unrest with their ensuing population dislocation provide ample opportunity for dissemination of both old and new **pathogens**. A rapid, portable, easy to use sensor that will detect **one or more** specific pathogenic agents at the outbreak **site**, in real time, would provide essential information for prevention of disease spread and for timely, effective treatment. We have designed a **biosensor** based on a quartz-crystal microbalance that can be used to detect one or an array of biol. agents using recognized receptor-ligand and antibody-antigen interactions. The device can sequentially refine a diagnostic signal by means of specific antibodies to identify captured **analytes**. Data will be presented to show sensitivity, specificity and reproducibility of **bacterial** enterotoxin detection in buffer solns., stool, and fluid samples.

L9 ANSWER 4 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 2001:267418 BIOSIS

DN PREV200100267418

TI Differences in binding of carbohydrates to U937 scavenger receptor(s) using surface plasmon resonance.

AU Kelley, Jim L. (1); Rice, P. J.; Kogan, G. (1); Ensley, H. E. (1); Kalbfleisch, J. H. (1); Browder, I. W. (1); Williams, D. L. (1)

CS (1) East Tennessee State University, Johnson City, TN, 37614 USA

SO FASEB Journal, (March 7, 2001) Vol. 15, No. 4, pp. A648. print.

Meeting Info.: Annual Meeting of the Federation of American Societies for Experimental Biology on Experimental Biology 2001 Orlando, Florida, USA March 31-April 04, 2001
ISSN: 0892-6638.

DT Conference

LA English

SL English

AB Glucans are components of fungal and **bacterial** cell walls that may serve as **pathogen** associated molecular patterns. Glucans are (1fwdarw3)-beta-D-linked glucose polymers which stimulate innate immune responses, promote wound healing, and ameliorate septic sequelae. We have previously shown that glucans **bind** to specific receptors on cultured U937 macrophages. These studies were designed to examine the interaction of carbohydrates with U937 acetylated low density lipoprotein (AcLDL) scavenger receptor(s). AcLDL was immobilized on a Biacore L1 **biosensor** surface and exposed to varying concentrations of U937 membranes to establish the optimal protein concentration. Competition of

U937 membrane (10 µg/mL) **binding** to AcLDL was examined with (1fwdarw3)-beta-D-glucan phosphate and two carboxymethyl (1fwdarw3)-beta-D-glucan (CMG) preparations which may differ in carboxymethyl substitution, and/or side chain branching pattern. Glucan phosphate completely inhibited the interaction of U937 membranes with immobilized AcLDL with a KD of 8 µM (95%CI, 4-18 µM). One CMG preparation completely inhibited U937 membrane-AcLDL interactions, with a KD of 87 nM (95%CI, 13-560 nM) while the other preparation inhibited only 58% +/- 3% of the interaction with a KD of 14 nM (95%CI, 8-26 nM). These results support the use of surface plasmon resonance for studying interactions of carbohydrates with membrane receptors. The data indicate the presence of **more than one AcLDL binding site** on U937 macrophages and suggest that the degree of carboxymethyl substitution and/or structural differences can influence the interaction of carbohydrates with AcLDL scavenger receptors.

L9 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 2001:130160 BIOSIS

DN PREV200100130160

TI Glycoprotein D homologs in herpes simplex **virus** type 1, pseudorabies **virus**, and bovine herpes **virus** type 1 bind directly to human HveC (nectin-1) with different affinities.

AU Connolly, Sarah A. (1); Whitbeck, J. Charles; Rux, Ann H.; Krummenacher, Claude; Littel-van den Hurk, Sylvia van Drunen; Cohen, Gary H.; Eisenberg, Roselyn J.

CS (1) Department of Microbiology, University of Pennsylvania School of Dental Medicine, 4010 Locust Street, Levy Building Room 253, Philadelphia, PA, 19104: sconcoll@mail.med.upenn.edu USA

SO Virology, (February, 2001) Vol. 280, No. 1, pp. 7-18. print. ISSN: 0042-6822.

DT Article

LA English

SL English

AB Distinct subsets of human receptors for alphaherpesviruses mediate the entry of herpes simplex **virus** (HSV), pseudorabies **virus** (PrV), or bovine herpes **virus** type 1 (BHV-1) into cells. Glycoprotein D (gD) is essential for receptor-mediated entry of all three **viruses** into cells. However, the gD homologs of these **viruses** share only 22-33% amino acid identity. **Several** entry receptors for HSV have been identified. Two of these, HveA (HVEM) and HveC (nectin-1), mediate entry of most HSV-1 and HSV-2 strains and are bound directly by HSV gD. A third receptor, HveB (nectin-2), mediates entry of HSV-2 and only a limited number of HSV-1 strains. HveB and HveC can also serve as entry receptors for PrV, whereas only HveC can serve this function for BHV-1. We show here that gD from PrV and BHV-1 **binds** directly to the human receptors that mediate PrV and BHV-1 entry. We expressed soluble forms of PrV gD and BHV-1 gD using recombinant baculoviruses and purified each protein. Using ELISA, we detected direct **binding** of PrV gD to HveB and HveC and direct **binding** of BHV-1 gD to HveC. **Biosensor** analysis revealed that PrV gD had a 10-fold higher affinity than HSV-1 gD for human HveC. In contrast, the **binding** of BHV-1 gD to HveC was weak. PrV gD and HSV-1 gD competed for **binding** to the V domain of HveC and both inhibited entry of the homologous and heterologous **viruses**. These data suggest that the two forms of gD **bind** to a common region on human HveC despite their low amino acid similarity. Based on affinities for human HveC, we predict a porcine HveC homolog may be important for PrV infection in its natural host, whereas a BHV-1 infection in its natural host may be mediated by a receptor other than a bovine HveC homolog.

L9 ANSWER 6 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 2000:8433 BIOSIS
 DN PREV200000008433
 TI Exploring biomolecular recognition using optical **biosensors**.
 AU Canziani, Gabriela; Zhang, Wentao; Cines, Douglas; Rux, Ann; Willis, Sharon; Cohen, Gary; Eisenberg, Roselyn; Chaiken, Irwin (1)
 CS (1) 913 Stellar Chance Laboratories, 422 Curie Boulevard, Philadelphia, PA, 19104-6100 USA
 SO Methods (Orlando), (Oct., 1999) Vol. 19, No. 2, pp. 253-269.
 ISSN: 1046-2023.
 DT General Review
 LA English
 SL English
 AB Understanding the basic forces that determine molecular recognition helps to elucidate mechanisms of biological processes and facilitates discovery of innovative biotechnological methods and materials for therapeutics, diagnostics, and separation science. The ability to measure interaction properties of biological macromolecules quantitatively across a wide range of affinity, size, and purity is a growing need of studies aimed at characterizing biomolecular interactions and the structural elements that drive them. Optical **biosensors** have provided an increasingly impactful technology for such biomolecular interaction analyses. These **biosensors** record the **binding** and dissociation of macromolecules in real time by transducing the accumulation of mass of an **analyte** molecule at the sensor surface coated with ligand molecule into an optical signal. Interactions of **analytes** and ligands can be analyzed at a microscale and without the need to label either interactant. Sensors enable the detection of bimolecular interaction as well as multimolecular assembly. Most notably, the method is quantitative and kinetic, enabling determination of both steady-state and dynamic parameters of interaction. This article describes the basic methodology of optical **biosensors** and presents **several** examples of its use to investigate such biomolecular systems as cytokine growth factor-receptor recognition, coagulation factor assembly, and **virus**-cell docking.

L9 ANSWER 7 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 1999:300861 BIOSIS
 DN PREV199900300861
 TI Anti-P30-52 monoclonal antibody cross-reacted to Env V3 and inhibited the viral multiplication of HIV-1-infected MT-4 cells.
 AU Ota, Akemi (1); Bautista, Analisa N.; Yadav, Munar Lal; Ueda, Sigeharu
 CS (1) Department of Neurovirology Division of Immunology and Virology Research Institute for Microbial Diseases, Osaka University, 3-1 Yamada-oka Suita city, Osaka, 565-0871 Japan
 SO Hybridoma, (April, 1999) Vol. 18, No. 2, pp. 139-147.
 ISSN: 0272-457X.
 DT Article
 LA English
 SL English
 AB It is well known that the anti-p17 antibody titer decreases with the disease progression among human immunodeficiency **virus** type 1 (HIV-1) carriers. We previously established **several** murine anti-p17 monoclonal antibodies (MAbs) to investigate the immunological role of p17, and to further characterize these MAbs, we examined the anti-p17 antibody titer in serum of a patient who was a long-term nonprogressor with hemophilia, and found that the antibody for the p17-derivative peptide from amino acid residues 30 to 52 (P30-52) cross-reacted to the third variable region of the envelope glycoprotein of HIV-1, Env V3. In the present study, we primed mice with P30-52 to establish anti-P30-52 MAbs (P30-52 MAbs), and examined their affinity and whether they suppressed the viral multiplication of HIV-1-infected MT-4

(HTLV-1-transformed CD4+ T-cell line) cells, in a TCID50 assay. At the same time, an anti-Env V3 MAb (Env V3 MAb) was also established and examined as above. The IgM-type P30-52 MAb and Env V3 MAb showed heteroclitic **binding**, and the IgM-type P30-52 MAb inhibited the viral multiplication. We also found that an increase of fragmented DNA of HIV-1-infected MT-4 cells co-cultured with P30-52 MAbs. Because DNA fragmentation is one of the features of programmed cell death, the viral multiplication may be suppressed by the apoptosis of HIV-1-infected MT-4 cells co-cultured with P30-52 MAbs. Though the relationship between cross-reactivity and the inhibition mechanism of multiplication of HIV-1 is unclear, P30-52 of p17 may well be a useful region of viral proteins for the development of therapeutic and vaccination strategies.

PALM INTRANET

Day : Monday

Date: 7/7/2003

Time: 10:12:22

Inventor Name Search Result

Your Search was:

Last Name = KAYLOR

First Name = ROSANN

Application#	Patent#	Status	Date Filed	Title	Inventor Name
<u>60259120</u>	Not Issued	020	12/29/2000	BIOABSORBABLE WOUND DRESSING	KAYLOR, ROSANN M.
<u>60114198</u>	Not Issued	159	12/30/1998	SUPERABSORBENT AND ELASTIC POLYMERIC MATERIAL INCLUDING POLYETHYLENE GLYCOL AND POLYTETRAMETHYLENE ETHER GLYCOL SOFT SEGMENTS, CAPABLE OF BEING FORMED INTO FIBERS, FILMS, OR FOAMS, AND METHODS OF MAKING SAME	KAYLOR , ROSANN MARIE
<u>60114197</u>	Not Issued	159	12/30/1998	SUPERABSORBENT AND ELASTIC POLYMERIC MATERIAL INCLUDING POLYETHYLENE GLYCOL AND POLYTETRAMETHYLENE ETHER GLYCOL SOFT SEGMENTS CONTAINING THERMALLY REVERSIBLE CROSS-LINKS, CAPABLE OF BEING FORMED INTO FIBERS, FILMS, OR FOAMS AND METHODS OF MAKING SAME	KAYLOR , ROSANN MARIE
<u>60114131</u>	Not Issued	159	12/30/1998	SUPERABSORBENT AND ELASTIC POLYMERIC MATERIAL INCLUDING LOW MOLECULAR WEIGHT POLYETHYLENE GLYCOL SOFT SEGMENTS CAPABLE OF BEING FORMED INTO FIBERS FILMS OR FOAMS	KAYLOR , ROSANN MARIE

				AND METHODS OF MAKING SAME	
<u>10406577</u>	Not Issued	019	04/03/2003	ASSAY DEVICES THAT UTILIZE HOLLOW PARTICLES	KAYLOR, ROSANN
<u>10325429</u>	Not Issued	030	12/19/2002	SELF-CALIBRATED FLOW-THROUGH ASSAY DEVICES	KAYLOR, ROSANN
<u>10305263</u>	Not Issued	019	11/26/2002	HEALTHCARE MONITORING SYSTEM	KAYLOR, ROSANN
<u>10286342</u>	Not Issued	030	11/01/2002	MEMBRANE-BASED ASSAY DEVICES THAT UTILIZE TIME-RESOLVED FLUORESCENCE	KAYLOR, ROSANN
<u>10277170</u>	Not Issued	020	10/21/2002	HEALTHCARE NETWORKS WITH BIOSENSORS	KAYLOR, ROSANN
<u>10263503</u>	Not Issued	020	10/03/2002	PRESSURE ACTIVATED REACTION VESSEL AND PACKAGE	KAYLOR, ROSANN MARIE
<u>10256278</u>	Not Issued	030	09/26/2002	DIFFRACTION-BASED DIAGNOSTIC DEVICES	KAYLOR, ROSANN
<u>10228838</u>	Not Issued	030	08/27/2002	FLUIDICS-BASED ASSAY DEVICES	KAYLOR, ROSANN
<u>10228837</u>	Not Issued	030	08/27/2002	SELF-CALIBRATION SYSTEM FOR A MAGNETIC BINDING ASSAY	KAYLOR, ROSANN
<u>10228836</u>	Not Issued	030	08/27/2002	MEMBRANE-BASED ASSAY DEVICES	KAYLOR, ROSANN
<u>10180219</u>	Not Issued	030	06/26/2002	ENHANCED DIFFRACTION-BASED BIOSENSOR DEVICES	KAYLOR, ROSANN M.
<u>10139025</u>	Not Issued	030	05/03/2002	BIOMOLECULE DIAGNOSTIC DEVICES AND METHOD FOR PRODUCING BIOMOLECULE DIAGNOSTIC DEVICES	KAYLOR, ROSANN
<u>10139018</u>	Not Issued	030	05/03/2002	DIFFRACTION-BASED DIAGNOSTIC DEVICES	KAYLOR, ROSANN
<u>10139013</u>	Not Issued	030	05/03/2002	BIOMOLECULE DIAGNOSTIC DEVICES AND METHOD FOR PRODUCING BIOMOLECULE DIAGNOSTIC DEVICES	KAYLOR, ROSANN
<u>10138882</u>	Not Issued	030	05/03/2002	DIFFRACTION-BASED DIAGNOSTIC DEVICES	KAYLOR, ROSANN
<u>10138677</u>	Not Issued	030	05/03/2002	DIFFRACTION-BASED DIAGNOSTIC DEVICES	KAYLOR, ROSANN

<u>10138598</u>	Not Issued	030	05/03/2002	DIFFRACTION-BASED DIAGNOSTIC DEVICES	KAYLOR, ROSANN
<u>10035013</u>	Not Issued	030	12/24/2001	READING DEVICE, METHOD, AND SYSTEM FOR CONDUCTING LATERAL FLOW ASSAYS	KAYLOR, ROSANN
<u>10027265</u>	Not Issued	030	12/21/2001	METHOD AND APPARATUS FOR COLLECTING AND TESTING BIOLOGICAL SAMPLES	KAYLOR, ROSANN MARIE MATTHEWS
<u>10026610</u> <i>PG Pub 2003 0118479</i>	Not Issued	030	12/21/2001	DIAGNOSTIC DEVICE	KAYLOR, ROSANN MARIE
<u>10026415</u> <i>PG Pub 2003 0115480</i>	Not Issued	030	12/21/2001	DIAGNOSTIC DEVICE, SYSTEM AND METHOD	KAYLOR, ROSANN MARIE
<u>10026314</u>	Not Issued	071	12/21/2001	DIAGNOSTIC METHODS AND DEVICES	KAYLOR, ROSANN MARIE
<u>10026069</u>	Not Issued	030	12/21/2001	METHOD TO PREPARE DIAGNOSTIC FILMS USING ENGRAVED PRINTING CYLINDERS SUCH AS ROTOGRAVURE	KAYLOR, ROSANN
<u>10013973</u> <i>PG Pub 2003 0107740</i>	Not Issued	041	12/11/2001	SYSTEMS TO VIEW AND ANALYZE THE RESULTS FROM DIFFRACTION-BASED DIAGNOSTICS	KAYLOR, ROSANN MARIE
<u>10013972</u> <i>11/17</i>	Not Issued	030	12/11/2001	METHODS TO VIEW AND ANALYZE THE RESULTS FROM DIFFRACTION-BASED DIAGNOSTICS	KAYLOR, ROSANN MARIE
<u>09733204</u>	6573040	150	12/08/2000	PATTERNED BINDING OF FUNCTIONALIZED MICROSPHERES FOR OPTICAL DIFFRACTION-BASED BIOSENSORS	KAYLOR, ROSANN M.
<u>09557453</u>	Not Issued	071	04/24/2000	USE OF INK-JET PRINTING TO PRODUCE DIFFRACTION-BASED BIOSENSORS	KAYLOR, ROSANN M.
<u>09503554</u>	6436651	150	02/11/2000	OPTICAL DIFFRACTION BIOSENSOR	KAYLOR, ROSANN MARIE
<u>09476252</u>	Not	041	12/30/1999	SUPERABSORBENT AND	KAYLOR,

	Issued			ELASTIC POLYMERIC MATERIAL INCLUDING POLYETHYLENE GLYCOL AND POLYTETRAMETHYLENE ETHER GLYCOL SOFT SEGMENTS, CAPABLE OF BEING FORMED INTO FIBERS, FILMS, OR FOAMS, AND METHODS OF MAKING SAME	ROSANN MARIE
<u>09471531</u>	Not Issued	040	12/23/1999	NONWOVEN WEBS HAVING LIQUID IMPERMEABILITY	KAYLOR, ROSANN M.
<u>09465921</u>	6399295	150	12/17/1999	USE OF WICKING AGENT TO ELIMINATE WASH STEPS FOR OPTICAL DIFFRACTION-BASED BIOSENSORS	KAYLOR, ROSANN M.
<u>09322420</u>	6281407	150	05/28/1999	PERSONAL CARE PRODUCT CONTAINING A PRODUCT AGENT	KAYLOR, ROSANN MARIE
<u>09301492</u>	Not Issued	093	04/28/1999	VAPOR SWEPT DIAPER	KAYLOR, ROSANN MARIE
<u>09213713</u>	6579673	150	12/17/1998	PATTERNED DEPOSITION OF ANTIBODY BINDING PROTEIN FOR OPTICAL DIFFRACTION-BASED BIOSENSORS	KAYLOR, ROSANN M.
<u>09210016</u>	6221579	150	12/11/1998	PATTERNED BINDING OF FUNCTIONALIZED MICROSPHERES FOR OPTICAL DIFFRACTION-BASED BIOSENSORS	KAYLOR, ROSANN M.
<u>08991644</u>	6060256	150	12/16/1997	OPTICAL DIFFRACTION BIOSENSOR	KAYLOR, ROSANN MARIE
<u>08841435</u>	Not Issued	161	04/22/1997	PROCESS AND ARTICLE FOR TREATING WATER	KAYLOR, ROSANN MARIE
<u>08821464</u>	6180288	150	03/21/1997	GEL SENSORS AND METHOD OF USE THEREOF	KAYLOR, ROSANN M.
<u>08784504</u>	5728634	150	01/17/1997	CAFFEINE ADSORBENT LIQUID FILTER	KAYLOR, ROSANN M.
<u>08768449</u>	5922550	150	12/18/1996	BIOSENSING DEVICES WHICH PRODUCE	KAYLOR, ROSANNE

				DIFFRACTION IMAGES	MARIE
<u>08723799</u>	<u>5770711</u>	150	09/30/1996	POLYSACCHARIDES SUBSTITUTED WITH POLYCARBOXYLATED MOIETIES	KAYLOR, ROSANN M.
<u>08681638</u>	Not Issued	161	07/29/1996	METHOD OF USING CATIONIC CHARGE MODIFIED FILTER	KAYLOR, ROSANN M.
<u>08678131</u>	<u>5662808</u>	150	07/11/1996	PROCESS AND ARTICLE FOR DISINFECTING WATER	KAYLOR, ROSANN M.
<u>08594879</u>	<u>5855788</u>	150	02/07/1996	CHEMICALLY CHARGED-MODIFIED FILTER FOR REMOVING PARTICLES FROM A LIQUID AND METHOD THEREOF	KAYLOR, ROSANN M.
<u>08448801</u>	<u>5603830</u>	150	05/24/1995	FILTER WITH INTEGRATED ADSORBENT	KAYLOR, ROSANN M.
<u>08448690</u>	Not Issued	166	05/24/1995	CAFFEINE ADSORBENT LIQUID FILTER	KAYLOR, ROSANN M.
<u>08368833</u>	<u>5538629</u>	150	12/15/1994	PROCESS AND ARTICLE FOR DISINFECTING WATER	KAYLOR, ROSANN M.

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